

## **REMARKS**

Upon entry of the present amendment, claims 12, 27, 28, 30, 32, and 33-37 are pending in the application. Claims 12, 32-34, and 36 have been amended. Claims 1-11, 13-26, 29, and 31 have been canceled. Applicants acknowledge with appreciation that the Examiner has stated that claims 27, 28, and 30 are allowable.

### **I. Objections to the Specification**

The specification has been objected to by the Examiner for not providing the Accession number and date of deposit for the deposited material. Applicants have amended the specification to delete reference to the Accession number and date of deposit for the deposited material. Applicants request that this objection be withdrawn.

### **II. Claim Objections**

Claims 12, 26, 29, 32 and 33 are objected because these claims recite non-elected SEQ ID NO: 10. Claim 26 has been objected to because of a typographical error. Claims 26 and 29 have been canceled. Claims 12 and 32 have been amended to delete reference to SEQ ID NO:10. Claim 33 as previously presented did not recite SEQ ID NO:10. Applicants request that these objections be withdrawn.

### **III. Rejections under 35 U.S.C. § 112, first paragraph-enablement**

Claims 29 and 31 were rejected under 35 U.S.C. § 112, first paragraph, for lack of enablement. Claims 29 and 31 have been canceled, thus this rejection is moot. Accordingly, Applicants request that this rejection be withdrawn.

### **IV. Rejections under 35 U.S.C. § 112, first paragraph- written description**

Claims 29, 31 and 33 were rejected under 35 U.S.C. § 112, first paragraph, for lack of written description. Claims 29 and 31 have been canceled, thus this rejection is moot. Claim 33 has been amended. Applicants traverse this rejection to the extent that it applies to amended claim 33.

According to the Examiner, the recitation of claim 33 of “wherein said nucleic acid does not consist of the nucleic acid sequence of SEQ ID NO: 54-64” introduces new matter. Applicants disagree. SEQ ID NO: 54-64 correspond to EST sequences AI040890; AI469873; AA722902; AI167887; R70041; R70089; W08205; AI391145; W20594; and AI684888. In the February 25, 2003 Office Action, the Examiner had objected to Claims 18 and 19 because those claims recited Accession Number for ESTs rather than SEQ ID Nos. In Applicant’s July 25, 2003 response, Applicant amended the specification, submitted a substitute sequence listing including SEQ ID Nos 54-64 and provided a declaration executed by the practitioner representing the Applicant stating that the amendatory material consisted of the same material incorporated by reference in the application. Thus, Applicants assert that claim 33 is supported by the as filed specification and adds no new matter. (*See, for example* Claims 18 and 19 as filed). Applicants request that this rejection be withdrawn.

**V. Rejections under 35 U.S.C. § 112, second paragraph**

Claims 33-37 were rejected under 35 U.S.C. § 112, second paragraph, for being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicant regards as the invention. Specifically the Examiner has rejected claim 33 (and claims 34-37 that depend therefrom) for not expressly reciting the conditions the Applicants deem to be stringent. Claim 33 has been amended as the Examiner suggested to recite the specific conditions which Applicant considers stringent. Support for this amendment can be found on page 35, first full paragraph. Applicants request that this rejection be withdrawn.

**VI. Rejections under 35 U.S.C. § 102(b)**

**A. Bentos**

Claims 32 and 33 were rejected under 35 U.S.C. § 102(b), as being anticipated by Bentos *et al.* ( 28 August 1998; “Bentos” ). Claims 32 and 33 have been amended. Applicants traverse this rejection to the extent that it applies to the amended claims. According to the Examiner Bentos discloses a sequence that is identical to SEQ ID NO:1 from nucleotide positions 786-941, and therefore reads on claim 33 which recites “an isolated nucleic acid comprising 100 consecutive nucleotide of SEQ ID NO:1”. In addition, the Examiner contends that the sequence

disclosed in Bentos would read on claim 32 which is drawn to an isolated nucleic acid which hybridizes with SEQ ID NO:1. Applicants disagree.

Contrary to the Examiner's assertion, the nucleic acid disclosed in Bentos would *not* hybridize with the nucleic acid of SEQ ID NO:1. A nucleic acid that would hybridize with the nucleic acid of SEQ ID NO:1 would not share a region of *identity* with the claimed sequence, but would be a sequence that is complementary to SEQ ID NO:1. Bentos does not disclose a sequence that is complementary to SEQ ID NO:1, therefore the sequence disclosed in Bentos can not anticipate claim 32.

Claim 33(a) has been amend to require that the nucleic acid contains at least 200 consecutive nucleotides of SEQ ID NO:1. Bentos discloses a sequence which contains 155 consecutive nucleotides of SEQ ID NO:1, Bentos does not disclose a sequence that is at least 200 consecutive nucleotides of SEQ ID NO:1 and therefore can not anticipate claim 33(a).

Applicants assert, for the reasons discussed above, that Bentos does not anticipate claims 32 and 33 as amended. Applicants request that this rejection be withdrawn.

#### **B. Ford**

Claims 32 -37 were rejected under 35 U.S.C. § 102(b), as being anticipated by Ford (US Patent 6,294,655; "Ford"). Independent Claims 32 and 33 have been amended. Applicants traverse this rejection to the extent that it applies to the amended claims. According to the Examiner, Ford discloses a sequence that is 86.6% identical to SEQ ID NO:1, and therefore reads on claim 33, which recites "an isolated nucleic acid comprising 100 consecutive nucleotide of SEQ ID NO:1". In addition, the Examiner contends that the sequence disclosed in Ford would read on claim 32 which is drawn to an isolated nucleic acid which hybridizes with SEQ ID NO:1.

Contrary to the Examiner's assertion, the nucleic acid disclosed in Ford would *not* hybridize with the nucleic acid of SEQ ID NO:1. A nucleic acid that would hybridize with the nucleic acid of SEQ ID NO:1 would not share a region of *identity* with the claimed sequence, but would be a sequence that is complementary to SEQ ID NO:1. Ford does not disclose a sequence that is complementary to SEQ ID NO:1, therefore the sequence disclosed in Ford can not anticipate claim 32 or claim 33(b).

Claim 33, has the express requirement that the claimed nucleic acid sequence does not consist of the nucleic acid sequence of SEQ ID NO:55, which is GenBank Accession No.

Applicants: Nicklin *et al.*  
U.S.S.N. 09/617,720

AI040890—the sequence disclosed in Ford. Therefore the sequence disclosed in Ford can not anticipate claim 33. Applicants request that this rejection be withdrawn.

### CONCLUSION

Applicants submit that the application is in condition for allowance and such action is respectfully requested. Should any questions or issues arise concerning the application, the Examiner is encouraged to contact the undersigned at the telephone number provided below.

Respectfully submitted,

*for Janine M. Susan, Reg. No. 46,119*  
Ivor R. Elrifi, Reg. No. 39,529  
Cynthia A. Kozakiewicz, Reg. No. 42,764  
Attorney for Applicant  
MINTZ, LEVIN, COHN, FERRIS  
GLOVSKY and POPEO, P.C.  
One Financial Center  
Boston, Massachusetts 02111  
Tel: (617) 542-6000

Dated: January 20, 2004

TRA 1874110v1